



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/644,759

08/21/2003

Masahiko Yamada

Q77053

7296

23373 7590 03/23/2009
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

MARIAM, DANIEL G

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

03/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/644,759	Applicant(s) YAMADA, MASAHIKO	
	Examiner DANIEL G. MARIAM	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8,9,12,15,16,19,22 and 25-27 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,7,10,11,13,14,17,18,20,21,23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 5, 8-10, 12, 15-17, 19 and 25-27 have been considered but are moot in view of the new ground(s) of rejection. Additionally, **the examiner has placed a telephone call to applicant's representative, namely (Ryan Heavener) on March 18, 2009 with the intention to discuss issues regarding the above-identified claims in light of the newly surfaced reference to Krishnamachari (6,721,449). Unfortunately, the examiner has been informed by Mr. Heavener, that the applicant has voluntarily abandoned the application due to the global financial instability, among other things.**

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7, 22, and 25-27 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. The Federal Circuit¹, relying upon Supreme Court precedent², has indicated that a statutory "process" under 35 U.S.C. 101 must (1) be tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. This is referred to as the "machine or transformation test", whereby the recitation of a particular machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility (See *Benson*, 409 U.S. at 71-72), and the involvement of the machine or

¹ *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

² *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

Art Unit: 2624

transformation in the claimed process must not merely be insignificant extra-solution activity (See *Flook*, 437 U.S. at 590”). While the instant claims recite a series of steps or acts to be performed, the claims neither transform an article nor positively tie to a particular machine that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. That is, the similarity calculation of the objects included in the images, and calculating the similarity value between the images on the basis of the calculated similarity value between the objects can be done mentally or manually without the use of a particular machine.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 8, 15, and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Krishnamachari (6,721,449).

With regard to claim 8, Krishnamachari discloses a similarity judgment apparatus for judging a similarity value between images related to or attached with characteristic information representing a characteristic of each of objects therein (See for example, Fig. 3), the similarity judgment apparatus comprising: object evaluation means, i.e., generally referred as characteristics comparator, for calculating a similarity value between the objects, i.e., colors in image 1 and image 2, included in the images, based on the characteristic information (See for example, items 302, 312, and 160, in Fig. 3 and the associated text); and image evaluation

Art Unit: 2624

means, i.e., image similarity measure, for calculating the similarity value between the images, based on the similarity value between the objects (See for example, item 161, in Fig. 3 and the associated text).

Claim 1 is rejected the same as claim 8 except claim 1 is directed to a method claim.

Thus, argument analogous to that presented above for claim 8 is applicable to claim 1.

Claim 15 is rejected the same as claim 8. Thus, argument similar to that presented above for claim 8 is applicable to claim 15. With regard to a computer-readable medium including a program, Krishnamachari's invention generally relates to the field of computers, and in particular to image retrieval from large image databases, such as photographic archives, digital libraries, catalogs, and videos (See col. 1, lines 7-10), and thus a program is inherently required for the computers to function or to perform the image retrieving operation.

With regard to claim 26, the method of claim 1, the calculation of similarity value between the objects is between objects appearing in plural images, said plural images being stored in a database (See for example, Fig. 3 and the associated text).

With regard to claim 27, the method of claim 26, wherein calculation of similarity values between objects includes similarity value calculations for multiple objects occurring in each of the plural images, and the similarity value between images is calculated between the plural images (See for example, Fig. 3 and the associated text).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2624

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 5, 9, 12, 16, 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamachari (6,721,449) in view of Stubler, et al. (6,804,684).

With regard to claim 12, Krishnamachari discloses all of the claimed subject matter as already set forth above in paragraph 4, and incorporated herein by reference. While Krishnamachari provides a sorted list of the plurality of reference images based on the plurality of similarity measures (See for example, item 170, in Fig. 1), Krishnamachari does not expressly call classifying the images according to the similarity value between the images. However, Stubler, et al (See for example, item 140, in Fig. 2) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Stubler, et al. into the system of Krishnamachari if for no other reason than to classify the pair of images on the basis of their similarity value.

With regard to claim 9, the similarity judgment method according to claim 1, wherein the characteristic information is included in metadata of image data representing the images (See for example, col. 6, lines 31-36 of Stubler, et al).

Claims 2 and 5 are rejected the same as claims 9 and 12 respectively, except claims 2 and 5 are method claims. Thus, arguments analogous to those presented above for claims 9 and 12 are respectively applicable to claims 2 and 5.

Art Unit: 2624

Claims 16 and 19 are rejected the same as claims 9 and 12 respectively. Thus, arguments analogous to those presented above for claims 9 and 12 are respectively applicable to claims 16 and 19.

With regard to claim 25, the method of claim 1, wherein the calculation of similarity value between images is for plural images stored in a database, and wherein at least two of the stored plural images, i.e., group of images, are compared against each other (See for example, item 130, in Fig. 2 of Stubler, et al).

Allowable Subject Matter

7. Claims 3-4, 6-7, 10-11, 13-14, 17-18, and 20-21, 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BRIAN P. WERNER can be reached on 571-272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL G MARIAM/
Primary Examiner, Art Unit 2624